

REMARKS

Claims 1, 2, 4, 6, 9-13, 16, 17, 21, 29 and 75 are pending in the present application. Applicant notes that the Final Office Action incorrectly recites the claims that are presently pending in the present application. Applicant has amended claim 9 and cancelled claim 10 herein. Applicant respectfully requests reconsideration of the claims in view of the foregoing amendments and the following remarks.

Claims 1-3, 6, 9, 12-13, 29 and 75 were rejected under 35 U.S.C. 103(a) based on Jae-Seung (U.S. Publication No. 2004/0000892) in view of Usuda et al. (U.S. Patent No. 5,658,682). Applicant notes the claim 3 was previously cancelled and should not have been identified by the Examiner in the above rejection.

Referring to independent claim 1, the claim recites in part:

"calculating a maximum discharge current of said battery utilizing said arithmetic circuit based on at least a minimum state-of-charge limit associated with said battery, said present state-of-charge of said battery, and a minimum voltage limit associated with said battery such that a future output voltage of said battery does not fall below said minimum voltage limit and a future state-of-charge of said battery does not fall below said minimum state-of-charge limit associated with said battery..."

Independent claim 75 recites limitations similar to the above limitations of claim 1.

Referring to Jae-Seung, the reference is directed to a method for determining a maximum discharge current of a battery. Jae-Seung, however, does not suggest or teach: "calculating a maximum discharge current of said battery ...based on at least a minimum state-of-charge limit associated with said battery", as recited in independent claim 1, and similarly recited in claim 75. In contrast, Jae-Seung calculates a discharge current based on a no-load discharge voltage, a minimum discharge voltage, and a steady-state discharge resistance. See Jae-Seung, page 1, paragraph 0012. Applicant further notes in the Final Office Action, the Examiner referred to paragraphs 0040-0042 of Jae-Sung and indicated that the Jae-Sung calculates a maximum discharge current from a no load voltage and that the voltage is maintained above a predetermined minimum. See Final Office Action, paragraph 6. However, applicant notes that the "no load voltage" of Jae-

Sung is not a "minimum state of charge limit" as recited in claims 1 and 75. Further, Usuda et al. does not teach the foregoing limitations of claims 1 and 75.

Further, Jae-Seung does not suggest or teach controlling a future output voltage of a battery or a future state-of-charge of the battery utilizing the maximum discharge current. See Jae-Seung, page 1, paragraph 0012. Accordingly, Jae-Seung does not suggest or teach determining a maximum discharge current such that a future output voltage of the battery does not fall below the minimum voltage limit and a future state-of-charge of the battery does not fall below the minimum state-of-charge limit associated with the battery, as recited by claims 1 and 75. Further, Usuda et al. does not teach the foregoing limitations.

Because Jae-Seung and Usuda et al., do not teach each and every limitation of independent claims 1 and 75, and claims 2, 6 and 29 which depend from claim 1, applicant submits that claims 1, 2, 6, 29 and 75 are allowable over these references.

The Examiner indicated that claim 10 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claim 9 such that claim 9 is an independent claim having the limitations of previous claims 1, 9 and 10. Accordingly, applicant submits that claim 9 is in condition for allowance. Further, applicant submits that claims 12 and 13 which depend from claim 9 are in condition for allowance.

Claims 4, 11 and 16 were rejected under 35 U.S.C. 103(a) based on Jae-Seung in view of Usuda et al. and further in view of Plett (U.S. 6,534,954).

Neither Jae-Seung, nor Usuda et al., nor Plett provides any teaching of: "calculating a maximum discharge current of said batterybased on at least a minimum state-of-charge limit associated with said battery", as recited in independent claim 1, and claim 4 which depends from claim 1. Further, neither Jae-Seung, nor Usuda et al., nor Plett provide any teaching of calculating the maximum discharge current of a battery such that "a future output voltage of said battery does not fall below said minimum voltage limit and a future state-of-charge of said battery does not fall below said

minimum state-of-charge limit associated with said battery", as recited in claim 1 and claim 4 which depends from claim 1.

Because Jae-Seung, Usuda et al., and Plett, do not suggest or teach each and every limitation of claim 4, applicant submits that claim 4 is allowable over these references.

Applicant notes that dependent claims 11 and 16 depend from independent claim 9, as amended, which is now in condition for allowance. Accordingly, applicant submits that claims 11 and 16 are also in condition for allowance.

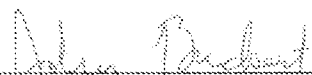
Claim 27 was rejected under 35 U.S.C. 103(a) based on Jae-Seung in view of Usuda et al. and further in view of Plett, and still further in view of Kawakami. Applicant notes the claim 27 was previously cancelled and should not have been identified by the Examiner in the above rejection.

In view of the foregoing amendments and remarks, applicant respectfully submits that the instant application is in condition for allowance. Such action is most earnestly solicited. If for any reason the Examiner feels that consultation with applicant's attorney would be helpful in the advancement of the prosecution, the Examiner is invited to call the telephone number below for an interview.

If there are any charges due with respect to this response document or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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